FOR QUALITY & EXCELLENCE IN HIGHER EDUCATION
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# BANGALORE UNIVERSITY
## DEPARTMENT OF CIVIL ENGINEERING

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JNANA BHARATHI
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**BUB/CTE/2014-15/** **Date: 16-02-2015**

**1. TESTING OF FINE AGGREGATES:**

**Sub**: Testing of Fine Aggregates.

{Project*: Construction of Anganawadi Building in Narasipura in Ward No. 09 Vidyaranyapura Sub division (Change of Work: Construction of Anganawadi Building in Thindlu 1st Kendra in Ward No. 9 Vidyaranyapura Sub division.}

**Ref.**: Letter No. AEE/BBMP/VSD/PR/126/2014-15, dated 12-02-2015

Sample supplied to lab by : Assistant Executive Engineer
Vidyaranyanapura Sub-Division
BBMP, Bangalore.

Name of the Contractor/ Agency*: Sri Hemadhri Reddy.

**TABLE - 1.1 : SIEVE ANALYSIS :**

| IS Sieve Size, mm | Percentage Passing | Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing | | | Remarks |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone -III | |
| 04.75 | 96.70 | 90-100 | 90-100 | 90-100 | The Sample Conforms to Grading **Zone-II** |
| 02.36 | 87.60 | 60-95 | 75-100 | 85-100 | |
| 01.18 | 59.10 | 30-70 | 55-90 | 75-100 | |
| 600. mic | 52.30 | 15-34 | 35-59 | 60-79 | |
| 300.mic | 26.70 | 5-20 | 8-30 | 12-40 | |
| 150.mic | 2.70 | 0-10 | 0-10 | 0-10 | |

**TABLE 1.2 ;**

| Sl No | Test Conducted | Sample | Results | Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002) |
|---|---|---|---|---|
| 1 | Silt Content | 001 | 1.51 % | Not more than 8% |
| 2. | Specific Gravity | ---- | 2.60 | ------- |

*As furnished by Client.

The Results relate only to the items tested.



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**BUB/CTE/2014-15/** **Date: 21-02-2015**

## 1. TEST REPORT ON CEMENT:

**Sub:** Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Construction of Anganawadi Building in Narasipura in Ward No. 09 Vidyaranyapura Sub division (Change of Work: Construction of Anganawadi Building in Thindlu 1st Kendra in Ward No. 9 Vidyaranyapura Sub division.}
**Ref.**: Letter No. AEE/BBMP/VSD/PR/126/2014-15, dated 12-02-2015
Sample supplied to lab by : Assistant Executive Engineer
Vidyaranyanapura Sub-Division
BBMP, Bangalore.
Name of the Contractor/ Agency*: Sri Hemadhri Reddy.

### PHYSICAL TESTS ON CEMENT

Brand* : Birla Super Grade *: 53
Type * : OPC
Date : 13-02-2015 to 20-02-2015

| SL No | Name of Test | Results | Requirements as per |
|---|---|---|---|
| | | Cement Sample | IS 12269-1987 |
| 1 | Initial setting time | **140 min** | Shall not be less than 30 min |
| 2 | Final setting time | **250 min** | Shall not be more than 600 min |
| 3 | Fineness (by dry sieving on IS 90 micron sieve) | **2.27 %** | Not to exceed 10.0% |
| 4 | Soundness test(by Le-Chatelier's method) | **1.50 mm** | Shall not be more than 10 mm |
| 5 | Compressive strength<br>a) 3 days (average of three results)<br>b) 7 days ( average of three results) | **28.47 N/ Sq mm**<br>**44.36 N/Sq mm** | Shall not be less than 27 N/Sqmm<br>Shall not be less than 37N/Sqmm |

*As furnished by Client.
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**BUB/CTE/2014-15/** **Date: 16-02-2015**

**1. TESTING OF COARSE AGGREGATES ( 40 mm):**

**Sub**: Testing of Coarse Aggregates.

{Project*: Construction of Anganawadi Building in Narasipura in Ward No. 09 Vidyaranyapura Sub division (Change of Work: Construction of Anganawadi Building in Thindlu 1st Kendra in Ward No. 9 Vidyaranyapura Sub division.}

**Ref.**: Letter No. AEE/BBMP/VSD/PR/126/2014-15, dated 12-02-2015

Sample supplied to lab by : Assistant Executive Engineer
Vidyaranyanapura Sub-Division
BBMP, Bangalore.

Name of the Contractor/ Agency*: Sri Hemadhri Reddy.

**Table - 1.1 : SIEVE ANALYSIS** :

| IS Sieve Size, mm | Percentage passing | Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing | |
|---|---|---|---|
| | 40 mm Sample | *Single size* | *Graded* |
| 40mm | 98.40 | 85-100 | 95 – 100 |
| 20mm | 43.90 | 0 -20 | 30- 70 |
| 10mm | 17.10 | 0 -5 | 10- 35 |
| 4.75mm | Nil | ------ | 0 - 5 |

**TABLE 1 2** :

| SL No | Test conducted | Sample No | Results | Requirements as per IS:383-1970 & Test Conforms to IS 2386( Part I to IV) – 1963 ( Reaffirmed on 2002) |
|---|---|---|---|---|
| 1. | Flakiness Index | As above | 16.40 % | Not to exceed 25 % |
| 2. | Crushing value | ----,,---- | 25.60 % | Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces |

*As furnished by Client.

The Results relate only to the items tested.



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**BUB/CTE/2015-16/** **DATE: 04-04-2015**

**1. TEST REPORT ON CEMENT CONCRETE CUBES :**

**Sub**: Testing of Concrete Cubes (28 days Compressive Strength)
{Project*: Construction of Anganawadi Building in Narasipura in Ward No. 09 Vidyaranyapura Sub division (Change of Work: Construction of Anganawadi Building in Thindlu 1st Kendra in Ward No. 9 Vidyaranyapura Sub division.}

**Ref.**: Letter No. AEE/BBMP/VSD/PR/126/2014-15, dated 01-04-2015
Sample supplied to lab by : Assistant Executive Engineer
Vidyaranyanapura Sub-Division
BBMP, Bangalore.
Name of the Contractor/ Agency*: Sri Hemadhri Reddy.

**RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE**

**CUBE SPECIMENS**

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : $M_{20}$

**TABLE 1.1 :**

| Sl No | Location/ Identification* | Date of Casting* | Date of Testing | Age in Days | C/S Area in $Mm^2$ | Maximum Load in K.N | Compressive Strength ($N/mm^2$) | Avg. Value |
|---|---|---|---|---|---|---|---|---|
| 1 | 001 | 04-03-15 | 01-04-15 | 28 | 22500 | 515 | 22.88 | **22.51** |
| | 002 | " | " | " | " | 500 | 22.22 | |
| | 003 | " | " | " | " | 505 | 22.44 | |

*As Furnished by Client.
The Results relate only to the items tested.

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